

SG-43 Report

Mandate

Code infrastructure to support a general nuclear database structure to aid in international adoption.

Needs:

- An Application Programming Interface (API) for reading and writing data in GNDS
- Checking codes to help validate new evaluations

<https://github.com/GeneralizedNuclearData/SG43>

Physics Checking

- Develop list of physics rules to check
- Adopt severity levels and specify their meaning
- Develop standardized way of reporting errors

API Design

- API vs. implementation
- Begin initial API details
- Begin with low-level API to abstract away file details
- Establish naming conventions

1. Prioritize list of physics rules
2. Write just enough API/implementation to be able check first 2–3 rules
3. Write checking code that uses API/implementation to perform first 2–3 checks
4. Checking code success/failure will inform how well API/implementation is fulfilling needs.
5. Repeat ad nauseam